What is claimed is:

1. A method for producing a plasma display panel that has a front substrate and a back substrate disposed to face each other, the method comprising:

a pre-baking phosphor layer forming step for forming a pre-baking phosphor layer containing a phosphor and an organic binder, on at least one of surfaces of the front substrate and the back substrate that are to face each other;

a sealing material applying step for applying a sealing material that softens with heat, to the peripheral region of at least one of the surfaces of the front and back substrates that are to face each other;

a stacking step for disposing the front and back substrates to face each other in a stack; and

a baking step for heating the front and back substrates to burn out the organic binder while supplying a dry gas containing oxygen to an internal space that is formed between the front and back substrates.

2. The method of Claim 1, wherein

the sealing material is a glass frit that softens at a temperature lower than the highest temperature achieved in the baking step.

3. The method of Claim 2, wherein

the glass frit has a softening point of 400 ℃ or higher.

4. The method of Claim 2 further comprising a preliminary baking step between the sealing material applying step and the stacking step, wherein

in the preliminary baking step, the glass frit is heated to a predetermined temperature to be preliminarily baked.

5. The method of Claim 1, wherein

the sealing material is a glass frit that is substantially composed of a crystalline glass.

6. The method of Claim 5, wherein

in the baking step, the heating is suspended for a predetermined time period after a temperature of the front and back substrates reaches to a predetermined temperature, then the heating is resumed to burn out the organic binder.

7. The method of Claim 1, wherein

at least one of the front and back substrates has thickness of 2 mm or less.

8. The method of Claim 1, wherein

a flow rate of the dry gas supplied to the internal

space is 1 CCM per 1 cm^3 of the internal space.

9. The method of Claim 8, wherein

a flow rate of oxygen contained in the dry gas supplied to the internal space is 0.5 CCM per 1 cm^3 of the internal space.

10. The method of Claim 1, wherein

in the baking step, the front and back substrates are heated while being secured by pressure applied by a plurality of pressing units attached to the front and back substrates.

11. The method of Claim 10, wherein

the plurality of pressing units apply pressure to the peripheral region of the front and back substrates.

12. The method of Claim 11, wherein

the plurality of pressing units apply pressure to the front and back substrates inward of the sealing material, excluding the central region of the front and back substrates.

13. The method of Claim 1 further comprising

an exhausting step for exhausting gases from the internal space, wherein

the exhausting step is started before the front and back

substrates cool off to ambient temperature after the baking step.

14. The method of Claim 13, wherein

the exhausting step is completed before the front and back substrates cool off to ambient temperature after the baking step.

15. The method of Claim 14, wherein

in the exhausting step, gases are exhausted while the internal space is maintained at a constant temperature.

16. A method for producing a plasma display panel that has a front substrate and a back substrate disposed to face each other, the method comprising:

a pre-baking phosphor layer forming step for forming a pre-baking phosphor layer containing a phosphor and an organic binder, on at least one of surfaces of the front substrate and the back substrate that are to face each other;

a sealing material applying step for applying a sealing material that softens with heat, to the peripheral region of one of the surfaces of the front and back substrates that are to face each other;

a baking step for burning out the organic binder by heating the front and back substrates separately disposed in a

furnace; and

a bonding step for disposing the front and back substrates to face each other and bonding the front and back substrates by keeping the front and back substrates being at a temperature higher than the softening point of the sealing material.

17. The method of Claim 16, wherein

in the bonding step, after the front and back substrates are disposed to face each other, a dry gas containing oxygen is supplied to an internal space formed between the front and back substrates.

18. The method of Claim 16, wherein

the sealing material is a glass frit.

19. The method of Claim 18, wherein

the glass frit has a softening point of 400 ℃ or higher.

20. The method of Claim 19, wherein

in the bonding step, the front and back substrates are heated to a temperature in a range of 400 ℃ to 520 ℃.

21. The method of Claim 16, wherein

in the baking step, the front and back substrates are heated in an atmosphere of a dry gas.

22. The method of Claim 21, wherein

in the baking step, the front and back substrates are heated in an atmosphere of a circulated dry gas.

23. The method of Claim 21, wherein

the dry gas used in the baking step contains oxygen.

24. The method of Claim 16, wherein

in the baking step, gases released from the front and back substrates as the substrates are heated are removed forcibly.

25. The method of Claim 16 further comprising a disposing step and a separating step in succession between the sealing material applying step and the baking step, wherein

in the disposing step, the front and back substrates are disposed to face each other, then

in the separating step, the front and back substrates are relatively moved apart along a predetermined path, and

in the bonding step, the front and back substrates are relatively moved together along the predetermined path so that the front and back substrates are disposed to face each other.

26. The method of Claim 25, wherein

in the separating step and the bonding step, the front and back substrates are moved parallel to each other.

27. The method of Claim 16, wherein

positioning markers are formed on surfaces of the front and back substrates before the baking step, and

in the bonding step, the front and back substrates are positioned using the positioning markers so as to face each other.

28. The method of Claim 16 further comprising

an exhausting step for exhausting gases from the internal space, wherein

the exhausting step is started before the front and back substrates cool off to ambient temperature after the bonding step.

29. The method of Claim 28, wherein

the exhausting step is completed before the front and back substrates cool off to ambient temperature after the baking step.

30. The method of Claim 29, wherein

In the exhausting step, gases are exhausted while the internal space is maintained at a constant temperature.

31. A plasma display panel production apparatus for use in the baking step and the bonding step in the method of Claim 16, comprising:

a heating furnace for housing and heating the front and back substrates disposed to face each other; and

a dry gas supplying mechanism for supplying a dry gas to an internal space formed between the front and back substrates.

32. The plasma display panel production apparatus of Claim 31 further comprising

an exhausting mechanism for exhausting gases from the internal space.

33. The method of Claim 1 or Claim 16, wherein

$BaMgAl_{10}O_{17}$:Eu is used as a phosphor constituting a blue phosphor layer.

34. A plasma display panel produced by the method of Claim 1 or Claim 16.

35. An image display apparatus comprising:

the plasma display panel of Claim 34; and

a driving circuit for driving the plasma display panel.